REMARKS

After the foregoing amendment, claims 10-26, as amended, are pending in the application. Claims 1-9 stand canceled. Applicant submits that no new matter has been added to the application by the Amendment.

Rejection - 35 U.S.C. § 103

The Examiner rejected claims 10-26 under 35 U.S.C. § 103 as being unpatentable over U.S. Patent No.6,094,649 (Bowen et al.) in view of U.S. Patent No. 6,718,332 (Sitaraman et al.).

The Present Invention

The claimed invention is directed to a remote management system for configuring and monitoring <u>devices</u> such as printers connected to a distributed computer network. One skilled in the art would understand that a device is "Any machine or component that attaches to a computer. Examples of devices include disk drives, printers, mice, and modems." (See www.webopedia.com and also page 3, lines 6-8 of the application and IEEE 100, page 297, "device" (11)). A variable is "a symbol or name that stands for a value." Accordingly, a device variable is a name for a value that describes a characteristic of the device. (See www.webopedia.com)

Devices such as printers, are typically described by various configuration variables using a variety of system protocols and languages which are not easily understood by humans. <u>Such configuration variables are stored in the device in the native language of the device.</u> Generally, for a user at the remote monitoring system to configure such devices or to receive information about the configuration variables from the devices, specialized computer programs with hard coded mapping must be written which provide translation of the device information in the native language of the device into a human understandable language at the user interface, or the user must have detailed knowledge of the device language.

A novel feature of the claimed computer system is that a user is able to communicate with each <u>device</u> connected to the system to obtain information about the <u>device</u> even though the management system does not have specific knowledge about the protocols and/or languages used by the <u>device</u>.

Advantageously, the present invention relieves the user of having detailed knowledge about the language/protocol of devices connected to the network and avoids the necessity of having to create specialized computer programs or scripts having hard coded mapping in order for the user to communicate with the network devices. The present invention achieves these advantages by utilizing generic applications that are modular and data driven in combination with a database, which may be either part of the system (a data dictionary) or may be external (a data central), to provide for translation of device information in the native language of the device into a human understandable language. The present invention also provides the means for dynamically and automatically updating itself with respect to the languages and protocols of a device of unknown type which is newly discovered by the network.

Claims 10-12

The Examiner states that Bowen et al. discloses "a method of using a computer system for automatically presenting values of variables obtained by a data engine from a selected type of device to a user interface ... comprising the steps of requesting by the data engine from a data dictionary, obtaining by the data engine from the data agent the values obtained by the data agent, obtaining from the data dictionary the translating information; translating by the data engine the obtained values into the human understandable language using the translating information obtained from the data dictionary and presenting by the data engine to the user interface the translated values in the human understandable language."

The Examiner further states that Bowen et al. does not explicitly detail "the data dictionary names of variables associated with the selected type of device and obtaining by the data agent, based on the selected type of device values of the [device] variables." The Examiner states, however, that "Sitaraman et al. discloses a seamless importation of data between a source system to a target system via an information broker or internet, translates data, a dictionary name location, attributes type location, application or protocol used by target system." The Examiner also states that it would have been obvious to one of ordinary skill in the art to incorporate the dictionary with name of variables/attributes associate with the target system as taught by Sitaraman et al. into Bowen et als.' apparatus in order to use the data dictionary. Applicant respectfully traverses the rejection.

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Claim 10 recites:

A method using a computer system for automatically presenting values of variables obtained by a data engine <u>from a selected type of device</u> to a user interface in a human-understandable language, the system including a data dictionary containing information for translating the values of the variables in the native language of the device into the human-understandable language, and a data agent which is connected to the device, the method comprising the steps of:

requesting by the data engine from the data dictionary, <u>names of all variables associated with the selected type of device;</u>

<u>obtaining by the data agent from the selected type of device, values of the variables;</u>

obtaining, by the data engine, from the data agent, the values obtained by the data agent;

obtaining from the data dictionary the translating information;

translating, by the data engine, the obtained values of the variables into the human-understandable language using the translating information obtained from the data dictionary; and

presenting, by the data engine, to the user interface, the translated values in the human-understandable language.

Applicant first reiterates arguments put forth in earlier responses that Bowen et al. does <u>not</u> teach or suggest: (1) obtaining translating information from a data dictionary, or (2) a data engine that uses the translating information from the data dictionary to translate the values of device variables into a human-understandable language as recited in claim 10. As discussed in the response to the Office Action of July 11, 2005, the data base 202 described at col. 7-8 and col. 12 of Bowen et al. merely utilizes a data dictionary 404 to divide the database into portions which will be exposed to indexing and into those portions which will not be exposed to indexing, and does <u>not</u> teach or suggest that the database includes translating information. Thus, since the data dictionary <u>does not include translating information</u>, the step of obtaining translating information from the data dictionary is neither taught, suggested or disclosed by Bowen et al.

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Further, Bowen et al. at col. 16, merely describes a page generator which displays the information from the database according to a template. There is no disclosure at col. 16 of obtaining the parameters of the template from a data dictionary. Further, it is clear from the description at col. 16 that the template in question merely determines the placement of information on a display and does not affect translating by the data engine the obtained values of device variables from the native language of a device into a human-understandable form, as recited in amended claim 10.

Sitaraman et al. is directed to a data transfer interface for importing data from a source system 16 to a target system 18 (Abstract). The source system 16 is described as a subscriber management system which holds data such as user's name, address etc. in a source database 12 (col. 2, lines 62-65). Sitaraman et al. also discloses a source data adapter 20 and a target data adapter 22, which are used to transfer data between the source database 12 and a target database 14 on a communications architecture 24 (col. 4, lines 21-23). A source interface 26 relies on a database trigger 38 to obtain user data from the source database 12 each time a record location in the source database 12 is populated with user data. The source interface 26 transmits the user record to the source data adapter 20 as an event (col. 4, lines 22-24). "Events can be user actions, such as clicking a mouse button or pressing a key, or system occurrences, such as running out of memory". (See www.webopedia.com).

The source data adapter 20 validates the record in the data validator 82. If the record is valid, attribute definition transcriber 84 converts the human readable form of the dictionary name, attribute name, and attribute type into descriptions that comply with the descriptions that have been standardized for, or are required by, a particular application or protocol used by target system 18. Thus, attribute definition transcriber 84 converts the each attribute definition from a first description, e.g., human readable form, into a second description. The source data adapter transmits the user record to the target data adapter 22, which in turn transmits the user data to the target interface 28. The target data adapter 22 uses format converter 102 to convert the validated and transcribed data record encapsulated by the event from the format described above to a target format and provides it to the target DBMS 14.

Applicant submits that contrary to what is asserted by the Examiner, Sitaraman et al. does not teach or suggest either: (1) requesting the names of device variables from a data dictionary or (2) obtaining from a data agent selected values of the device variables.

Assuming, arguendo, that the source database 12 corresponds to the data dictionary recited in claim 10, Applicant first submits that Sitaraman et al. teaches that the database holds <u>user</u> information such as names addresses etc. (col. 2. lines 62-65) and consequently does <u>not</u> teach or suggest that requests to the database constitute requests for the names of variables associated with a selected system <u>device</u> as recited in claim 10. Further, Sitaraman et al. teaches that <u>the information retrieved from the source database is transmitted to the target database</u>. In contrast, claim 10 recites that the names of variables obtained from the data dictionary are used to obtain, by a data agent, values of the device variables from the selected system device, such <u>values of device variables</u> being transmitted to the user and <u>not</u> the information obtained from the data dictionary.

Sitaraman et al. merely discloses a system for transferring information in one database to a second database by: (1) converting the format of each record in the first database to the format of the second database using an attribute definition transcriber 84 <u>having a fixed format conversion</u> tailored to the second database, and (2) encapsulating each record in an "event" for passing the record through a communication system. Sitaraman et al. requires <u>multiple source data adapters</u> to translate the format of information from multiple sources (i.e. databases) having different formats to the format of the target system. Such plurality of source data adapters is neither taught or suggested by Sitaraman et al. Further, even if multiple data adapters were suggested by Sitaraman et al. (which they are not), that would not be the same as a data engine using translating information from a data dictionary as a basis for translating the information as recited in claim 10.

It is well settled that when making a rejection under 35 U.S.C. § 103, the Examiner has the burden of establishing a *prima facie* case of obviousness. MPEP § 2142. To establish *prima facie* obviousness of a claimed invention, all the claimed limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974), MPEP §2143.03.

Applicant submits that neither Bowen et al. nor Sitaraman et al. teach or suggest:(1) obtaining <u>translating information</u> from a data dictionary, (2) requesting from the data dictionary <u>names of all variables</u> associated with a selected device (3) obtaining from the selected device the <u>values of the device</u> variables or (4) translating the selected the values of the device variables using the translating information obtained from the data dictionary into human-

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understandable form. Accordingly, the combination of Bowen et al. and Sitaraman et al. can not possibly teach or suggest all the elements of claim 10.

In respect to combing references, the Examiner can establish a *prima facia* case only by showing an objective teaching in the prior art, or that knowledge generally available to one of ordinary skill in the art would lead the individual to combine the relevant teachings of the references in the manner suggested by the Examiner. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596, 1598, (Fed. Cir. 1988) MPEP § 2143.01.

Applicant submits that Bowen et al. and Sitaraman et al. are not properly combinable under 35 U.S.C. § 103. Bowen et al. is directed to <u>document retrieval system</u> using keyword searches Accordingly, Even if Sitaraman et al. taught obtaining from a data dictionary the names of <u>device</u> variables for a selected type of device and the step of obtaining by a data agent the <u>values of the device variables</u> from the device, <u>which it does not</u>, the Examiner has not identified any specific knowledge nor any teaching or suggestion in Bowen et al. that would cause one skilled in the art to incorporate into Bowen et al. the step of obtaining from a data dictionary the names of <u>device</u> variables for a selected type of device and the step of obtaining by a data agent the <u>values of the device variables</u> from the device.

Further, Sitaraman et al is directed to a data transfer interface for transmitting <u>user data</u> from a first database which uses a first format to a second database using a second format by <u>utilizing hard coded attribute definition transcriber 84</u>. Thus, even if the teachings of Sitaraman et al. and Bowen et al. were combined, they would not teach a system which utilizes <u>a generic computer program with information from a data dictionary</u> to present the <u>values of variables from a selected type of device</u> to a user in a human-understandable language as recited by claim 10.

Applicants submit for all the above reasons, that the combination of Bowen et al. and Sitaraman et al. does not make claim 10 obvious. Accordingly Applicant respectfully requests reconsideration and withdrawal of the §103 rejection of claim 10. .

In respect to claim 11, there is no teaching or suggestion in Bowen et al. at col. 12, lines 16-28 (or anywhere else in Bowen et al. or Sitaraman et al.) of automatically communicating with a second data dictionary if the sought for information is not available in the first data dictionary. In respect to claim 12, there is no teaching or suggestion in Bowen et al. at col. 12, lines 16-28 (or anywhere else in Bowen et al. or Sitaraman et al.) of automatically

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storing in the first data dictionary the names of the variables obtained from the second data dictionary.

Further, it is respectfully submitted that since claim 10 has been shown to be allowable, claims 11-12 dependent on claim 10 are allowable, at least by their dependency. Accordingly, for all the above reasons, Applicants respectfully request reconsideration and withdrawal of the § 103 rejection of claims 11-12.

Claims 13 -21

The Examiner has rejected claim 13 based on the same rational as claim 10. Accordingly, Applicant traverses the Examiner's rejection on at least the same bases as claim 10.

Applicant further submits that the Examiner has <u>not</u> considered those limitations in claim 13 which are <u>not</u> similar to the limitations of claim 10 and which <u>are patentable</u> over the applied references.

Specifically, has not identified in either Bowen et al or Sitaraman et al. a teaching, suggestion or disclosure of a plurality of data agents, each one of which being associated with a specific language or protocol, or the following steps of claim 13:

(a) selecting one of the plurality of data agents <u>based on the network address</u>;

(b) communicating with a data dictionary to obtain names of variables associated with <u>a union of the selected network address and the selected data agent</u>; and

(c) obtaining values of the variables from the device at the selected network address required <u>for determining a type of the device</u> using the language and protocol of the selected data agent, wherein if the required values are obtained, a type of the device is determined from the values of the variables, and if the required values are not obtained, <u>automatically repeating steps (a), (b) and (c)</u> until the required values are obtained.

Accordingly, for all the reasons cited in connection with claim 10 and those above, Applicant respectfully requests reconsideration and withdrawal of the §103 rejection of claim 10.

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In respect to claim 14, Applicant submits that there is <u>no</u> teaching or suggestion in Bowen et al. in Fig. 2 (or anywhere else in Bowen et al. or Sitaraman et al.) of <u>automatically</u> communicating with a second data dictionary <u>if</u> the sought for information is not available in the first data dictionary. In respect to claims 15 and 20, Bowen et al. merely discloses that information is <u>displayed</u> according to an HTML template page and does <u>not</u> teach or suggest that <u>communication</u> between the data dictionary and the data central uses a hypertext markup language link. In respect to claim 16, col. 11, lines 1-10 merely discloses that textual data may be stored in a database and does not teach or suggest the step of obtaining the names of <u>device</u> variables associated with the type of device from the data dictionary. In respect to claim 17, Bowen at col. 15 merely describes an object menu for accessing a database and does not teach or suggest a step of communication with a device for <u>obtaining values of the device variables</u> associated with the type of device. In respect to claim 19, the there is no teaching or suggestion in Bowen et al. at col. 11, lines 16-28 (or anywhere else in Bowen et al. or Sitaraman et al.) of automatically storing in the first data dictionary the names of the variables obtained from the second data dictionary.

Further, it is respectfully submitted that since claim13 has been shown to be allowable, claims 14-21 dependent on claim 13 are allowable, at least by their dependency. Accordingly, for all the above reasons, Applicant respectfully requests reconsideration and withdrawal of the § 103 rejection of claims 14-21.

Claims 22-26

The Examiner has rejected claim 22 based on the same rational as claim 10. Accordingly, Applicant traverses the Examiner's rejection on the same bases as claim 10.

Applicant further submits that the Examiner has <u>not</u> considered those limitations in claim 22 which are <u>not</u> similar to the limitations of claim 10 and which <u>are patentable</u> over the applied references.

Specifically, Applicant submits neither Bowen et al nor Sitaraman et al. teach, suggest or disclose a system which includes at <u>least two data agents, adapted to utilize a different language or protocol of a device</u> and

> *a data dictionary connected to the data engine, said data dictionary*
> *containing information for <u>translating the values of device</u> variables in the native*
> *language of the device into human understandable language and being adapted to*

automatically provide names of the device variables corresponding to both the network address and to the language and/or protocol of the device, wherein the data engine uses the names of the device variables provided by said data dictionary to automatically obtain values of the device variables from the device, and wherein the data engine automatically translates the values of the device variables into human understandable language using the information obtained from the data dictionary for translating the values.

Accordingly, for all the reasons cited in connection with claim 10 and those above, Applicant respectfully requests reconsideration and withdrawal of the §103 rejection of claim 22.

In respect to claim 23, Applicant submits that there is <u>no</u> teaching or suggestion in Bowen et al. in Fig. 2 (or anywhere else in Bowen et al. or Sitaraman et al.) of <u>automatically</u> communicating with a second data dictionary <u>if</u> the sought for information is not available in the first data dictionary. In respect to claim 24, Bowen et al. merely discloses that information is <u>displayed</u> according to an HTML template page and does <u>not</u> teach or suggest that <u>communication</u> between the data dictionary and the data central uses a hypertext markup language link. In respect to claim 25, col. 11, lines 1-10 merely discloses that textual data may be stored in a database and does not teach or suggest <u>storing the names of variables associated with the type of device in the data dictionary.</u>

Further, it is respectfully submitted that since claim 22 has been shown to be allowable, claims 23-26 dependent on claim 22 are allowable, at least by their dependency. Accordingly, for all the above reasons, Applicant respectfully requests reconsideration and withdrawal of the § 103 rejection of claims 23-26.

Conclusion

Insofar as the Examiner's objections and rejections have been fully addressed, the instant application, including claims 1-26, is in condition for allowance and Notice of Allowability of claims 10-26 is therefore earnestly solicited.

Respectfully submitted,

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